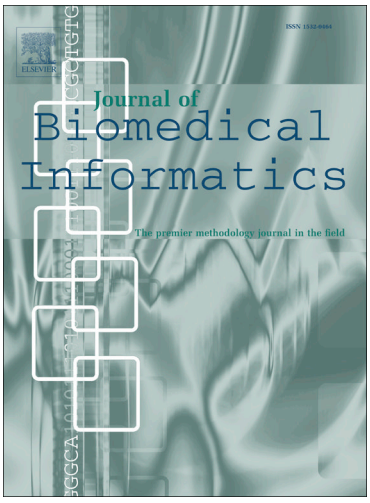

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Local Spatial Obesity Analysis and Estimation Using Online Social Network Sensors

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Abstract: Recently, the online social networks (OSNs) have received considerable attentions as a revolutionary platform to offer users massive social interaction among users that enables users to be more involved in their own healthcare. The OSNs have also promoted increasing interests in the generation of analytical, data models in health informatics. This paper aims at developing an obesity identification, analysis, and estimation model, in which each individual user is regarded as an online social network 'sensor' that can provide valuable health information. The OSN-based obesity analytic model requires each sensor node in an OSN to provide associated features, including dietary habit, physical activity, integral/incidental emotions, and self-consciousness. Based on the detailed measurements on the correlation of obesity and proposed features, the OSN obesity analytic model is able to estimate the obesity rate in certain urban areas and the experimental results demonstrate a high success estimation rate. The measurements and estimation experimental findings created by the proposed obesity analytic model show that the online social networks could be used in analyzing the local spatial obesity problems effectively.

Keywords: Online Social Networks, Internet of Things (IoT), Obesity, Health Informatics, Bioinformatics, Public health

1. Introduction

Advancements in social network, social media, and mobile technologies have significantly attracted tremendous attention from researchers and all kinds of users. In view of the features such as free exchange of information, users can share their interests, experiences and many other kinds of information through online social networks.

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